

REMARKS

This application has been carefully considered in connection with the Examiner's Final Office Action dated August 17, 2009. Reconsideration and allowance are respectfully requested in view of the following.

Summary of Rejections

Claims 1-31 were pending at the time of the Final Office Action.

Claims 1-13 and 24-31 were withdrawn from consideration.

Claims 14-17 and 21-23 were rejected under 35 USC § 102.

Claims 18-20 were rejected under 35 USC § 103.

Claim 14 was objected.

Summary of Response

Claim 14 is currently amended herein.

Claims 15, 19, and 21 remain as originally submitted.

Claims 16-18, 20, and 22-23 were previously presented.

Claims 1-13 and 24-31 were previously withdrawn.

Remarks and Arguments are provided below.

Summary of Claims Pending

Claims 14-23 are currently pending following this response.

Response to Rejections

Billing processing systems sometimes must accommodate billing data from several different sources in order to execute a subsequent processing operation. This sometimes presents a problem because first, multiple originating systems may generate billing data that is not uniform across all of the originating systems, and second, any request for processing the billing data in order to output or create a secondary type of invoice using the received billing data requires tremendous customization on a case-by case basis. Thus, the process of extracting data from multiple different systems and subsequently performing customized data processes becomes inefficient and expensive.

Accordingly, the pending application relates to a method for determining, based on a data identifier, a specific mediation process from a plurality of data processes to be applied to invoice data. The data identifier identifies the source of data and is stored in a reference table. Invoice data may come from a variety of sources having different formatting and relating to, for example, different users or different services. Some data may need to be normalized such that data from different sources in different formats may be used by a billing system to generate invoices where the billing system requires that the invoice data be provided in a specific format. Other processes may require the combination of data that are from a current time period and some future time period thus requiring a workflow adjustment that captures the current data, awaits the future data, captures the future data, then executes the combination processing. Still other processes may require specialized or customized invoices for certain customers. Thus, data that is associated with a particular customer must be identified and a mediating process identified for that customer that takes that particular customer's data and generates a

customized invoice corresponding to the needs and requirements of that particular customer. Other mediating processes may be required for other data depending on the nature and identity of the source of the data. The pending application determines the source of the data, identifies an appropriate mediating process to perform on that data, and then performs the appropriate mediating process.

With regard to the art rejections, the Office Action has cited McConnell et al., U.S. Pub. No. 2003/0074313 ("McConnell"). McConnell discloses a billing manager in a gateway of a network that directs messages in real time to a real time mediation device if the message relates to a pre-pay service or alternatively to a billing log for off-line processing. McConnell does not disclose identifying from a plurality of mediating processes the appropriate mediating process to perform on data by identifying a data identifier associated with the data and determining the mediation process that is registered in the reference table that corresponds with the data identifier, but at most discloses a routing process that directs messages to one of two different modules depending on whether the messages relate to a pre-pay service or a billing log file for off-line processing.

This distinction, as well as others, will be discussed in greater detail in the analysis of the present claims that follows.

Response to Objections

Claim 14 was objected to because of an informality. Claim 14 has been amended to read -- invoice data -- as suggested in the Final Office Action.

Response to Rejections under Section 102**Claim 14:**

Claim 14 was rejected under 35 USC § 102(e) as being anticipated by McConnell et al., U.S. Pub. No. 2003/0074313 (“McConnell”).

I. McConnell does not disclose a mediation process nor does it disclose a mediated output.

Claim 14 recites “performing the at least one of the plurality of mediation processes on the invoice data to generate a mediated output.” The Final Office Action asserts that McConnell teaches this feature relying on paragraphs [-0016]-[0021] of McConnell. Applicants respectfully disagree.

Routing data to one of two destinations as disclosed by McConnell is not a mediation process. McConnell discloses writing a message to a billing log or sending it directly to a real-time billing mediation device for viewing by a customer. (See, e.g., McConnell, ¶ [0022]). The billing manager of McConnell does not perform any data processing on the data, but merely determines where to route the data based on a header in the message that is extracted by the gateway. (See, e.g., McConnell, ¶ [0015]-[0016]). Furthermore, the output from the billing manager of McConnell is not a mediated output, but is the same as the received message merely written either to the billing log or sent to the real-time billing mediation device. (See, McConnell, ¶ [0022]).

The mediation process of claim 14 is not merely a router. The mediation process of claim 14 performs data processing functions on the data. In other words, the mediation process manipulates the data to produce a mediated output that is transformed and different from the original input data. Thus, in contrast to McConnell,

the mediation process manipulates the data rather than merely routes it. Further in contrast to McConnell, the mediated output is different and not identical to the input.

For example, the specification of the pending application states:

a mediation processes, for purposes of this disclosure, refers to performing a specific, desired data processing function on data based on a need that is generally specified by the data source. For example, in the embodiment where the data received is billing or invoice data, and in particular, billing or invoice data from multiple customers, one customer may request the production of a secondary invoice using all, or some, of the billing or invoice data that is received. Specifically, whereas the billing or invoice data may be used primarily to create a bill cyclically, a customer may request the creation of a secondary invoice that tracks specific identified charges or tracks billing periods outside the normal billing period. The mediation process is thus the processing necessary to produce the requested information – a secondary invoice production.

(Application, ¶ [0024])

The pending application further states “For example, mediation process may monitor new bill data posted to determine whether the related data requires mediation based on information related to the data, such as a request by the customer for customized billing or reporting. The mediation process may generate mediated output including a new or combined invoice, new call detail records, adjustments to invoices, or information useful by the business for managing financial, marketing, and other aspects of the business.” (Application, ¶ [0025]). Additionally, the pending application states that “[w]hile special handling table 108 only identifies the mediation processes to be performed on data, some of the mediation functions which perform the mediation processes registered in special handling table 108 are actually stored such that they are available to special handling function controller 112. Specifically, mediation functions that simply require

the manipulation of readily available data are stored such that they can be invoked and controlled by special handling function controller 112.” (Application, ¶ [0037]). As another example, the pending application further states “mediation functions which execute some form of workflow adjustment in order to execute a particular mediation process fall into this category. For example, a mediation process that requires the combination of data that are from a current time period and some future time period would require a mediation function which captures the current data, awaits the future data, captures the future data, then executes the combination processing.” (Application, ¶ [0038]). It is apparent from these examples that a mediation process is not merely routing data from one place to another leaving the data intact, but rather the mediation process actually manipulates and modifies the data to produce a mediated output.

II. McConnell does not disclose registering data identifiers and mediation processes in a reference table where each data identifier corresponds to a mediation process.

Claim 14, recites “registering ... a plurality of data identifiers and a plurality of mediation processes in a reference table .. wherein each of the plurality of data identifiers is registered to correspond to at least one of the plurality of mediation processes.” The Final Office Action relied on paragraphs [0018]-[0020] of McConnell to disclose this feature. Applicants respectfully disagree.

For convenience, paragraphs [0018]-[0020] of McConnell are reproduced below.

[0018] The Billing Manager may route the billing data to the mediation device 7 in real time. Also, the gateway 1 may transmit the billing data to the client.

[0019] In more detail, an event reflects some aspect of the processing of a transaction, and a transaction is a complete request/response cycle from the user's perspective. Each

message generated in response to an event contains a number of fields which hold common information, such as source, destination addresses, and data specific to the event itself, such as the URI being retrieved or the volume of data downloaded.

[0020] Multiple messages may be created for a single transaction. Each message has a numeric identifier, and all messages that relate to the same transaction are linked with a unique number, called the event linkage id (ELID). The ELID is used to ensure that all messages related to one transaction can be associated, for example during processing by a billing mediation device 6 or 7. The gateway manages the generation and allocation of ELIDs.

Nothing in these paragraphs (or elsewhere in McConnell) discloses a reference table as required by claim 14. Furthermore, nothing in McConnell discloses registering. Additionally, a transaction that includes multiple messages, each of which may include multiple fields, as disclosed by McConnell, is not equivalent to a reference table as claimed. The messages which comprise the transaction are discrete separate messages that are not contained in a single table. The transaction is merely an abstraction, but is not a physical embodiment of the messages. Also, an event linkage ID (ELID) as disclosed in McConnell, that links or commonly identifies all of the messages related to the same transaction is not equivalent to the claimed data identifier in the reference table. The ELID is a header that is part of the data that may constitute a part of a transaction, but it is not contained in a reference table which associates a mediation process with the data identifier as required by claim 14. A text search of McConnell for the string "reg" produced no results. A text search of McConnell for the word "table" produced only three results, all of which were related to tables presented to

illustrate examples of messages and tags. However, no occurrence of “table” in the context of “reference table” was found.

In contrast to claim 14, McConnell discloses that a web server hosts web-based applications, such as on-line shopping applications. (See, McConnell, ¶ [0011]). The application on the server is programmed to generate messages including a billing-related HTTP header. (See, McConnell, ¶ [0013]). The application generates the messages in response to events associated with the service being provided. (See, McConnell, ¶ [0014]). The gateway detects and extracts each header and forwards it to the billing manager. (See, McConnell, ¶ [0015]). The billing manager may write the message to the billing log and/or can send the message directly to a real-time billing mediation device. (See, McConnell, ¶ [0022]). The choice of whether to write the message to the billing log or send it via the real-time interface is configurable within the gateway. (See, McConnell, ¶ [0022]). Notably, the ELID is not used to make the decision as to whether to log the message or send it via the real-time interface, whereas the data identifiers claimed are used to identify which mediation process to use. The gateway merely routes signals between a client and a network server. (See, McConnell, ¶ [0004]). Thus, it is apparent that the gateway is a hardware and/or software application that requires significant time and effort to reconfigure. As such, it is not easily modifiable. Notably absent from the system disclosed by McConnell is a reference table. However, a reference table, in contrast to the gateway of McConnell, is easily modifiable to accommodate changes to the system.

For at least the reasons established above in sections I and II, Applicant respectfully submits that independent claim 14 is not anticipated by McConnell and respectfully requests allowance of this claim.

Claims Depending from Claim 14:

Claims 15-17 and 21-23 were rejected under 35 USC § 102(3) as being anticipated by McConnell.

Dependent claims 15-17 and 21-23 depend directly or indirectly from independent claim 14 and incorporate all of the limitations thereof. Accordingly, for at least the reasons established in sections I and II above, Applicant respectfully submits that claims 15-17 and 21-23 are not anticipated by McConnell and respectfully requests allowance of these claims.

Response to Rejections under Section 103**Claims Depending from Claim 14:**

Claims 18-20 were rejected under 35 USC § 103(a) as being unpatentable over McConnell.

Dependent claims 18-20 depend directly or indirectly from independent claim 14 and incorporate all of the limitations thereof. Accordingly, for at least the reasons established in sections I and II above, Applicant respectfully submits that claims 18-20 are not taught or suggested by McConnell and respectfully request allowance of these claims.

Conclusion

Applicant respectfully submits that the present application is in condition for allowance for the reasons stated above. If the Examiner has any questions or comments or otherwise feels it would be helpful in expediting the application, he is encouraged to telephone the undersigned at (972) 731-2288.

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.

Respectfully submitted,

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